

Name: _____

THIS SHOULD NOT BE YOUR ONLY SOURCE OF REVIEW. BE SURE TO STUDY YOUR NOTES, HOMEWORK, AND OLD TESTS AS WELL!!!

- 1) What is the sum of $\frac{x+4}{x}$ and $\frac{x-4}{4}$?
 A) $\frac{2x}{x+4}$ B) $\frac{x^2+16}{4x}$ C) $4+x$ D) $\frac{1}{2}$
- 2) Simplify: $(5x^2 - 2x + 5) - (2x^2 - 4x - 3)$
- 3) Simplify: $\frac{\sqrt{48}}{\sqrt{3}}$
 A) 4 B) 16 C) 8 D) $\frac{4\sqrt{3}}{3}$
- 4) Which of the following correctly shows the factoring of $x^3 + 27$?
 A) $(x+3)(x^2+3x-9)$ C) $(x+3)(x^2-3x+9)$
 B) $(x+3)(x-3)(x-3)$ D) $(x+3)(x+3)(x+3)$
- 5) When factored completely, $3x^2 + 7x - 20$ is equivalent to
 A) $(3x+5)(x-4)$ C) $(3x-4)(x+5)$
 B) $(3x+4)(x-5)$ D) $(3x-5)(x+4)$
- 6) Write an expression to represent $ax - ay - bx + by$ when factored completely.
- 7) The expression $\frac{6}{a-5} - \frac{a+5}{a^2-25}$ is equivalent to
 A) $\frac{5}{a-5}$ B) $\frac{5a}{a-5}$ C) $\frac{5}{a+5}$ D) $\frac{5a}{a+5}$
- 8) Combine and simplify: $\frac{2}{z-3} + \frac{4}{3-z}$

9) Combine and simplify: $\frac{h-20}{h^2-16} + \frac{2}{h-4}$

10) Express $\frac{3a+1}{a^2-1} - \frac{1}{a+1}$ as a single fraction in simplest form.

11) Expressed in simplest form, $\frac{x}{2} - \frac{x}{3} + \frac{x}{4}$ is equivalent to

A) $\frac{x}{3}$

B) $\frac{x}{24}$

C) $\frac{5x}{12}$

D) $\frac{3x}{24}$

12) Simplify: $(1 - \frac{x}{x+2})(\frac{x^2}{4} - 1)$

13) Expressed in simplest form, $\frac{\frac{a}{b}-1}{\frac{a}{b}+1}$ is equivalent to

A) $\frac{a-b}{a+b}$

B) $\frac{1}{a-b}$

C) $\frac{a+b}{a-b}$

D) $\frac{1}{a+b}$

14) Simplify: $\frac{7 - \frac{1}{r}}{7 + \frac{1}{r}}$

15) Simplify: $\frac{\frac{3}{w-x} - \frac{3}{w+x}}{\frac{6}{w^2-x^2}}$